tion bureau, without laboratories.

In view of the changes in the constitution of the Imperial Institute which have been decided upon, Professor Wyndham R. Dunstan, F.R.S., will resign the directorship of the institute next month, to which he was appointed in 1903.

ENGLISH VITAL STATISTICS[1]

THE registrar-general's statistical review of England and Wales for 1922, which has just been published, shows the lowest birth rate recorded in any year, save the war years 1917–1919; the lowest death rate, except in 1920 and 1921, and the lowest infant mortality ever recorded.

Births numbered 780,124, equivalent to a rate of 20.4 per thousand living, and were fewer by 68,690 than in 1921. Excluding the three years mentioned, we have to go back as far as 1869 to find a year in which the births reached so low a figure, and at that date the population was only 22,000,000, against 38,000,000 in the year under review. Before the war, the male births were in proportion of 1,038 to 1,000 female births. From 1916 onward, however, the plurality of males showed a decided increase, the average for the five years from 1916 to 1920 being as high as 1,051, at which figure it remained in 1921. Last year the proportion fell slightly, to 1,049, but it is still, as will be seen, considerably in excess of the prewar figure. The proportion of illegitimate to total births fell slightly, from 45 per thousand in 1921 to 44 in 1922.

Deaths numbered 486,229, equivalent to a rate of 12.8 per thousand living, and were 27,600 more than in 1921, when the lowest death rate (12.1) was recorded. If the population is standardized to the sex and age constitution of 1901, the rate is reduced to 11.9. As usual, the male deaths exceeded the female; the numbers were: Males, 246,670; females, 239,559, so that the ratio of deaths was 1,029 males to 1,000 females. As, however, there is a large excess of females over males in our population, this ratio does not give a true idea of the proportion of male to female deaths in terms of equal numbers. The death rate for males was 13.6 per thousand living, that for females 12.0. A notable feature of the death rates (standardized) is that for ages 0–5 and 5–10 years the rates are the lowest ever recorded—that for 0–5 being 1.6 and that for 5–10 being 0.2 per thousand living at those ages below the record of the year 1921. For ages 10–15 the rate remained unchanged, but from that point onward the rates show increases over 1921, growing more pronounced at the higher ages. Indeed, the rate at ages over 85 is in excess of any since 1915. The most important cause of the rise in the death rate over that of 1921 was influenza, which claimed 21,498 victims, as against only 8,995 in the preceding year. Thus, this one disease alone was responsible for nearly half the increase in deaths recorded. Diseases of the heart caused 59,837 deaths, an increase of 6,127 over the number for 1921; bronchitis claimed 40,912 victims, as compared with 33,684 in 1921, and pneumonia 40,930, as compared with 34,708.

With an infant mortality rate of 77 per thousand births, 1922 beat all records, the lowest rate heretofore recorded being 80 in 1920. The progress made in the saving of infant life is shown by going back only to the beginning of the present century. In 1901 the rate was 151, nearly double that of 1922. How important this saving of infant life is, in view of the declining birth rate, may be appreciated from the fact that, while in 1901 the births were nearly 150,000 more than in 1922, the survivors in the latter year were only 60,000 fewer. Thus, by the improvement in our infant death rate, more than half the decline in the numbers of births has been made up. The number of deaths of infants under one year of age in 1922 was 60,121; had the infant mortality rate been equal to that of 1901, the number would have been nearly 118,000.

[1] The *Journal* of the American Medical Association.

AWARDS OF THE ELLIOT MEDAL FOR THE YEARS 1921, 1922, 1923

GRATIFYING response has been made to the request of the Elliot Medal Award Committee for nominations for the award. Titles of many interesting and valuable works have been submitted for each of the years for which the awards are to be made by the National Academy of Sciences in the spring of 1924. The committee desires again to call attention to the terms of the Deed of Gift, which are as follows:

> One such medal and diploma shall be given in each year and they, with any unexpended balance of income for the year, shall be awarded by the said National Academy of Sciences to the author of such paper, essay or other work upon some branch of zoology or palaeontology published during the year as in the opinion of the . . . judges in that regard shall be the most meritorious and worthy of honor. The medal and diploma and surplus income shall not, however, for more than two years successively, be awarded for treatises upon any one branch of either of the sciences above mentioned. . . .
>
> As science is not national the medal and diploma and surplus income may be conferred upon naturalists of any country, and as men eminent in their respective lines of scientific research will act as judges, . . . no person acting as such judge shall be deemed on that account ineligible to receive this annual gift . . . if, in the opinion of his associates, he shall, by reason of the ex-

cellence of any treatise published by him during the year, be entitled to receive them.

The committee will be glad to receive further nominations up to the close of the year 1923, which should be addressed to the secretary of the National Academy of Sciences, Smithsonian Institution, Washington, D. C.

THE COMMITTEE ON PACIFIC INVESTIGATIONS OF THE NATIONAL RESEARCH COUNCIL

FOR some years the Division of Foreign Relations of the National Research Council has maintained a committee on Pacific investigations. The purposes of this committee have been to encourage research undertakings in the Pacific area, especially of problems which are peculiar to that region. The committee has also represented American scientific interests in two Pan-Pacific Science Congresses which have been held, one at Honolulu in 1920 and the second this last summer in Australia.

The committee represents the continuation of a movement which was begun a number of years ago, making for concerted study of the scientific problems of the Pacific area, regarding that area as a distinct regional unit. This movement dates back to the organization of a committee in the National Academy of Sciences to direct attention to the importance of developing scientific work in the countries within and bordering upon the Pacific Ocean, both for the welfare of that region itself and also on account of the important contributions to scientific knowledge which would come from such studies. The early formation of the committee reflected interest in these problems which had been taken by scientific men of the Pacific Coast and by others who had had an opportunity to work upon materials from the Pacific region.

The Committee of the Research Council has recently been enlarged and now consists of the following members: *Chairman,* Herbert E. Gregory; *vice-chairman,* T. Wayland Vaughan; William Bowie, Barton W. Evermann, Elmer D. Merrill, John C. Merriam, W. E. Ritter, Leonhard Stejneger, Walter T. Swingle, Clark Wissler.

THE ROLLIN D. SALISBURY MEMORIAL FUND

THE University of Chicago announces that a committee, consisting of Thomas E. Donnelley, chairman, from the board of trustees; Professor H. H. Barrows, chairman of the department of geography; Professor E. S. Bastin, chairman of the department of geology, and two other persons not members of the board of trustees or of the university faculties, has been appointed to raise a fund of $100,000 to $150,000 to be known as the Rollin D. Salisbury Memorial Fund for the Promotion of Research in the Fields of Geology and Geography.

The income from the fund is to be used for the following specific classes of projects: (a) Field research expeditions; (b) office and laboratory researches; (c) research fellowship grants to graduate students of special promise for the conduct of specific researches; (d) aid in the publication of research results when such publication can not be otherwise arranged; and (e) other projects that come appropriately under the caption of promotion of research.

Professor Salisbury, who for over twenty years was dean of the Ogden Graduate School of Science, head of the department of geography for sixteen years, and head of the department of geology at the time of his death in 1922, left a bequest to the university of a large fund for the endowment of scientific fellowships. Dean Salisbury's influence was widely extended through graduates in geology and geography who have gone to important positions in many educational institutions.

SCIENTIFIC NOTES AND NEWS

THE REVEREND THOMAS GEORGE BONNEY, the distinguished English geologist, died at Cambridge on December 9, aged ninety years.

THE Perkin Medal, awarded annually to a chemist, residing in the United States, for the most valuable achievement in applied chemistry, has this year been awarded to Dr. Fred. M. Becket, distinguished for his work in metallurgy. The presentation will take place at the January 11 meeting of the American Section of the Society of Chemical Industry, Chemists' Club, New York City.

DR. EMIL G. BECK, Chicago, has been awarded its medal by the Radiological Society of North America for his work on radiology.

DR. F. GOWLAND HOPKINS, F.R.S., distinguished for his work on vitamins, has been presented with the gold medal of the Royal Society of Medicine, London.

THE jubilee prize of the Swedish Medical Association has been awarded Dr. R. Fahræus for his report on the speed of sedimentation of erythrocytes, entitled "The suspension stability of the blood." The Lennmalm prize is to be awarded to Dr. Sven Ingvar for his series of works on the cerebellum.

PROFESSOR CARLOS CHAGAS, director of the Institut Osvaldo Cruz in Rio de Janeiro, has been appointed foreign correspondent of the Belgian Royal Academy of Medicine.

THE resignation of Dr. Henry Frank Moore as